CLAIMS

1. A method for detecting a change in posture of a subject, the method comprising:

measuring an electrical impedance between two or more sites on a stomach of the subject, and generating an impedance signal responsive thereto; and

detecting the change in posture by performing a posture analysis of the impedance signal.

2. The method according to claim 1, comprising:

detecting an indication of potential eating by the subject by performing an eating analysis of the impedance signal; and

responsive to the posture analysis, interpreting the impedance signal as indicative of eating.

3. A method for detecting eating by a subject, the method comprising:

measuring an electrical impedance between two or more sites on a stomach of the subject, and generating an impedance signal responsive thereto;

detecting a change in posture of the subject by performing a posture analysis of the impedance signal;

detecting an indication of potential eating by the subject by performing an eating analysis of the impedance signal; and

responsive to the posture analysis, interpreting the impedance signal as indicative of the eating.

4. The method according to claim 3, wherein detecting the change in posture comprises interpreting a sudden, substantial change in the impedance signal as indicative of the change in posture.

5. The method according to claim 3, wherein detecting the change in posture comprises interpreting a sudden, sustained change in the impedance signal as indicative of the change in posture.

6. The method according to claim 3, comprising providing insulin to a blood circulation of the subject responsively to detecting the eating.

7. The method according to claim 3, comprising providing cholecystokinin to a blood circulation of the subject responsively to detecting the eating.

8. The method according to claim 3, comprising applying an electrical signal to a pancreas of the subject responsively to detecting the eating.

9. The method according to claim 3, comprising modulating insulin secretion by applying an electrical signal to a vagus nerve of the subject responsively to detecting the eating.

10. The method according to claim 3, wherein detecting the indication of potential eating comprises analyzing an electrical measurement of the stomach, and, responsive to the analysis, determining whether an electrical event indicative of a slow wave has occurred.

11. The method according to any one of claims 3-10, wherein detecting the indication of potential eating comprises calculating a baseline value of the impedance signal.

12. The method according to claim 11, wherein interpreting comprises modifying the baseline value responsively to the posture analysis.

13. The method according to claim 11, wherein calculating the baseline value comprises using a slow-reacting formula to calculate the baseline value.

14. The method according to any one of claims 3-10, wherein detecting the indication of potential eating comprises applying a low-pass filter to the impedance signal.

15. The method according to claim 14, wherein detecting the indication of potential eating comprises applying a high-pass filter to the impedance signal.

16. The method according to claim 14, wherein interpreting comprises modifying at least one value in the filter responsively to detecting the change in posture.

17. The method according to any one of claims 3-10, comprising reducing a volume of the stomach responsively to the indication of eating.

18. The method according to claim 17, wherein reducing the volume of the stomach comprises tightening a gastric band around the stomach.

19. The method according to claim 17, wherein reducing the volume of the stomach comprises inflating a gastric balloon in the stomach.

20. The method according to claim 17, wherein reducing the volume of the stomach comprises applying an electrical signal to the stomach, and configuring the electrical signal to modify a contraction pattern of one or more muscles of the stomach.

21. A method for treating a subject, comprising:

applying an electrical signal to a site of the subject selected from the list consisting of: a colon of the subject, and a distal small intestine of the subject; and

configuring the signal to stimulate cells of the subject to increase secretion of glucagon-like-peptide-1 (GLP-1), in order to treat the subject.

22. The method according to claim 21, wherein the cells include L-cells, and wherein configuring the signal comprises configuring the signal to stimulate the L-cells to increase the secretion of the GLP-1.

23. The method according to claim 21, wherein the site includes the colon, and wherein applying the signal comprises applying the signal to the colon.

24. The method according to claim 21, wherein the site includes the distal small intestine, and wherein applying the signal comprises applying the signal to the distal small intestine.

25. The method according to claim 21, comprising selecting a subject suffering from obesity, and wherein applying the signal comprises applying the signal to the site of the selected subject.

26. The method according to claim 21, comprising selecting a subject suffering from a condition selected from the list consisting of: NIDDM, heart disease, and hypertension, and wherein applying the signal comprises applying the signal to the site of the selected subject.

27. The method according to claim 21, wherein applying the signal comprises applying the signal not responsively to detecting eating by the subject.

28. The method according to claim 21, wherein applying the signal comprises applying the signal periodically.

29. The method according to claim 21, wherein configuring the signal comprises varying at least one parameter of the signal in real time.

30. The method according to any one of claims 21-29, wherein applying the signal comprises applying an excitable tissue control (ETC) signal to the site.

31. The method according to claim 30, comprising sensing natural electrical activity of the site, wherein applying the ETC signal comprises applying the ETC signal responsive to the sensed natural electrical activity.

32. The method according to any one of claims 21-29, wherein configuring the signal comprises:

detecting an occurrence selected from the list consisting of: an occurrence of eating, an occurrence of excessive eating, and an occurrence of an elevated blood glucose level; and

responsive to detecting the occurrence, increasing a strength of the signal.

33. The method according to claim 32, wherein applying the signal comprises applying the signal in bursts of pulses, and wherein increasing the strength of the signal comprises increasing a frequency of the pulses in each of the bursts.

34. The method according to claim 32, wherein applying the signal comprises applying the signal in bursts of pulses, and wherein increasing the strength of the signal comprises decreasing a spacing between successive bursts.

35. The method according to any one of claims 21-29, wherein applying the signal comprises applying the signal in bursts of pulses.

36. The method according to claim 35, wherein configuring the signal comprises configuring a spacing between successive bursts to have a duration of between about 1 and about 10 seconds.

37. The method according to claim 35, wherein configuring the signal comprises configuring a frequency of the pulses within each of the bursts to be between about 1 and about 200 Hz.

38. The method according to claim 37, wherein configuring the signal comprises configuring a frequency of the pulses within each of the bursts to be between about 5 and about 50 Hz.

39. The method according to any one of claims 21-29, comprising detecting eating by the subject, wherein applying the electrical signal comprises applying the signal responsive to detecting the eating.

40. The method according to claim 39, wherein applying the signal responsive to detecting the eating comprises commencing applying the signal at a time selected from the list consisting of: substantially simultaneously with a commencement of the eating, between about one and about 5 minutes after the commencement of the eating, and between about one and about 5 minutes prior to the commencement of the eating.

41. The method according to claim 39, wherein detecting the eating comprises:

measuring an electrical impedance between two or more sites on a stomach of the subject, and generating an impedance signal responsive thereto;

detecting a change in posture of the subject by performing a posture analysis of the impedance signal;

detecting an indication of potential eating by the subject by performing an eating analysis of the impedance signal; and

responsive to the posture analysis, interpreting the impedance signal as indicative of the eating.

42. The method according to claim 39, wherein detecting the eating comprises:

measuring an electrical impedance between two or more sites on a stomach of the subject, and generating an impedance signal responsive thereto;

comparing a measure of a sudden, sustained change in the impedance signal to a threshold; and

detecting the eating by analyzing the impedance signal, and responsive to the comparing.

43. The method according to claim 39, wherein detecting the eating comprises analyzing an electrical measurement of the stomach, and, responsive to the analysis, determining whether an electrical event indicative of a slow wave has occurred.

44. A method for treating a subject, comprising:

applying an electrical signal to a site of the subject selected from the list consisting of: a colon of the subject, and a distal small intestine of the subject; and

configuring the signal to perform an action selected from the list consisting of: stimulate cells of the subject to increase secretion of peptide YY (PYY), and inhibit secretion of ghrelin by cells of the subject, in order to treat the subject.

45. The method according to claim 44, wherein the cells include L-cells.

46. The method according to claim 44, wherein the site includes the colon, and wherein applying the signal comprises applying the signal to the colon.

47. The method according to claim 44, wherein the site includes the distal small intestine, and wherein applying the signal comprises applying the signal to the distal small intestine.

48. The method according to claim 44, comprising selecting a subject suffering from a condition selected from the list consisting of: obesity, NIDDM, heart disease, and hypertension, and wherein applying the signal comprises applying the signal to the site of the selected subject.

49. The method according to claim 44, wherein applying the signal comprises applying the signal not responsively to detecting eating by the subject.

50. The method according to claim 44, wherein applying the signal comprises applying the signal periodically.

51. The method according to claim 44, wherein configuring the signal comprises varying at least one parameter of the signal in real time.

52. The method according to any one of claims 44-51, wherein applying the signal comprises applying an excitable tissue control (ETC) signal to the site.

53. The method according to claim 52, comprising sensing natural electrical activity of the site, wherein applying the ETC signal comprises applying the ETC signal responsive to the sensed natural electrical activity.

54. The method according to any one of claims 44-51, wherein configuring the signal comprises:

detecting an occurrence selected from the list consisting of: an occurrence of eating, an occurrence of excessive eating, and an occurrence of an elevated blood glucose level; and

responsive to detecting the occurrence, increasing a strength of the signal.

55. The method according to claim 54, wherein applying the signal comprises applying the signal in bursts of pulses, and wherein increasing the strength of the signal comprises increasing a frequency of the pulses in each of the bursts.

56. The method according to claim 54, wherein applying the signal comprises applying the signal in bursts of pulses, and wherein increasing the strength of the signal comprises decreasing a spacing between successive bursts.

57. The method according to any one of claims 44-51, wherein applying the signal comprises applying the signal in bursts of pulses.

58. The method according to claim 57, wherein configuring the signal comprises configuring a spacing between successive bursts to have a duration of between about 1 and about 10 seconds.

59. The method according to claim 57, wherein configuring the signal comprises configuring a frequency of the pulses within each of the bursts to be between about 1 and about 200 Hz.

60. The method according to claim 59, wherein configuring the signal comprises configuring a frequency of the pulses within each of the bursts to be between about 5 and about 50 Hz.

61. The method according to any one of claims 44-51, comprising detecting eating by the subject, wherein applying the electrical signal comprises applying the signal responsive to detecting the eating.

62. The method according to claim 61, wherein applying the signal responsive to detecting the eating comprises commencing applying the signal at a time selected from the list consisting of: substantially simultaneously with a commencement of the eating, between about one and about 5 minutes after the commencement of the eating, and between about one and about 5 minutes prior to the commencement of the eating.

63. A method for detecting a change in posture of a subject, the method comprising:

measuring an electrical impedance between two or more sites on tissue of the subject, and generating an impedance signal responsive thereto; and

detecting the change in posture by performing a posture analysis of the impedance signal.

64. The method according to claim 63, comprising:

detecting an indication of potential eating by the subject by performing an eating analysis of the impedance signal; and

responsive to the posture analysis, interpreting the impedance signal as indicative of eating.

65. A method for detecting eating by a subject, the method comprising:

measuring an electrical impedance between two or more sites on a stomach of the subject, and generating an impedance signal responsive thereto;

comparing a measure of a sudden, sustained change in the impedance signal to a threshold; and

detecting the eating by analyzing the impedance signal, and responsive to the comparing.

66. The method according to claim 65, wherein analyzing the impedance signal comprises applying a high-pass filter to the impedance signal.

67. The method according to claim 65, wherein analyzing the impedance signal comprises comparing a measure of the impedance signal with a threshold.

68. The method according to claim 65, wherein analyzing the impedance signal comprises applying a low-pass filter to the impedance signal.

69. The method according to any one of claims 65-68, wherein comparing the measure of the change comprises calculating a difference between a current measure of the change and a previous measure of the change, and comparing an absolute value of the difference to the threshold.

70. The method according to any one of claims 65-68, wherein analyzing the impedance signal comprises calculating a baseline value of the impedance signal.

71. The method according to claim 70, wherein calculating the baseline value comprises using a slow-reacting formula to calculate the baseline value.

72. The method according to claim 70, wherein detecting the eating comprises resetting the baseline value when the measure is greater than the threshold.

73. The method according to claim 72, wherein resetting the baseline value comprises adding a current value of the impedance signal to the baseline value.

74. Apparatus for detecting a change in posture of a subject, comprising:

two electrodes, adapted for coupling to respective sites on a stomach of the subject; and

a control unit, adapted to:

drive a current between the electrodes,

measure, responsive to the current, an electrical impedance between the sites,

generate an impedance signal responsive to the measured electrical impedance, and

detect the change in posture by performing a posture analysis of the impedance signal.

75. The apparatus according to claim 74, wherein the control unit is adapted to:

detect an indication of potential eating by the subject by performing an eating analysis of the impedance signal; and

responsive to the posture analysis, interpret the impedance signal as indicative of eating.

76. Apparatus for detecting eating by a subject, comprising:

two electrodes, adapted for coupling to respective sites on a stomach of the subject; and

a control unit, adapted to:

drive a current between the electrodes,

measure, responsive to the current, an electrical impedance between the sites,

generate an impedance signal responsive to the measured electrical impedance,

detect a change in posture of the subject by performing a posture analysis of the impedance signal,

detect an indication of potential eating by the subject by performing an eating analysis of the impedance signal, and

responsive to the posture analysis, interpret the impedance signal as indicative of the eating.

77. The apparatus according to claim 76, wherein the control unit is adapted to interpret a sudden, substantial change in the impedance signal as indicative of the change in posture.

78. The apparatus according to claim 76, wherein the control unit is adapted to interpret a sudden, sustained change in the impedance signal as indicative of the change in posture.

79. The apparatus according to claim 76, wherein the control unit is adapted to provide insulin to a blood circulation of the subject responsively to detecting the eating.

80. The apparatus according to claim 76, wherein the control unit is adapted to provide cholecystokinin to a blood circulation of the subject responsively to detecting the eating.

81. The apparatus according to claim 76, wherein the control unit is adapted to apply an electrical signal to a pancreas of the subject responsively to detecting the eating.

82. The apparatus according to claim 76, wherein the control unit is adapted to modulate insulin secretion by applying an electrical signal to a vagus nerve of the subject responsively to detecting the eating.

83. The apparatus according to claim 76, wherein to detect the indication of potential eating, the control unit is adapted to analyze an electrical measurement of the stomach, and, responsive to the analysis, determine whether an electrical event indicative of a slow wave has occurred.

84. The apparatus according to any one of claims 76-83, wherein to detect the indication of potential eating, the control unit is adapted to calculate a baseline value of the impedance signal.

85. The apparatus according to claim 84, wherein the control unit is adapted to modify the baseline value responsively to the posture analysis.

86. The apparatus according to claim 84, wherein the control unit is adapted to use a slow-reacting formula to calculate the baseline value.

87. The apparatus according to any one of claims 76-83, wherein to detect the indication of potential eating, the control unit is adapted to apply a low-pass filter to the impedance signal.

88. The apparatus according to claim 87, wherein to detect the indication of potential eating, the control unit is adapted to apply a high-pass filter to the impedance signal.

89. The apparatus according to claim 87, wherein the control unit is adapted to modify at least one value in the filter responsively to detecting the change in posture.

90. The apparatus according to any one of claims 76-83, wherein the control unit is adapted to reduce a volume of the stomach responsively to the indication of eating.

91. The apparatus according to claim 90, comprising a gastric band, and wherein to reduce the volume of the stomach, the control unit is adapted to tighten the gastric band around the stomach.

92. The apparatus according to claim 90, comprising a gastric balloon, adapted for placement in the stomach, and wherein to reduce the volume of the stomach, the control unit is adapted to inflate the gastric balloon.

93. The apparatus according to claim 90, wherein to reduce the volume of the stomach, the control unit is adapted to apply an electrical signal to the stomach, and to configure the electrical signal to modify a contraction pattern of one or more muscles of the stomach.

94. Apparatus for treating a subject, comprising:

at least one electrode, adapted to be coupled to a site of the subject selected from the list consisting of: a colon of the subject, and a distal small intestine of the subject; and

a control unit, adapted to drive the at least one electrode to apply an electrical signal to the site, and to configure the signal to stimulate cells of the subject to increase secretion of glucagon-like-peptide-1 (GLP-1), in order to treat the subject.

95. The apparatus according to claim 94, wherein the cells include L-cells, and wherein the control unit is adapted to configure the signal to stimulate the L-cells to increase the secretion of the GLP-1.

96. The apparatus according to claim 94, wherein the site includes the colon, and wherein the control unit is adapted to apply the signal to the colon.

97. The apparatus according to claim 94, wherein the site includes the distal small intestine, and wherein the control unit is adapted to apply the signal to the distal small intestine.

98. The apparatus according to claim 94, wherein the control unit is adapted to configure the signal to be suitable for treating a condition selected from the list consisting of: obesity, NIDDM, heart disease, and hypertension.

99. The apparatus according to claim 94, wherein the control unit is adapted to apply the signal in the absence of detecting eating by the subject.

100. The apparatus according to claim 94, wherein the control unit is adapted to apply the signal periodically.

101. The apparatus according to claim 94, wherein the control unit is adapted to vary at least one parameter of the signal in real time.

102. The apparatus according to any one of claims 94-101, wherein to apply the signal, the control unit is adapted to apply an excitable tissue control (ETC) signal to the site.

103. The apparatus according to claim 102, wherein the control unit is adapted to sense natural electrical activity of the site, and to apply the ETC signal responsive to the sensed natural electrical activity.

104. The apparatus according to any one of claims 94-101, wherein the control unit is adapted to:

detect an occurrence selected from the list consisting of: an occurrence of eating, an occurrence of excessive eating, and an occurrence of an elevated blood glucose level; and

responsive to detecting the occurrence, increase a strength of the signal.

105. The apparatus according to claim 104, wherein the control unit is adapted to apply the signal in bursts of pulses, and to increase the strength of the signal by increasing a frequency of the pulses in each of the bursts.

106. The apparatus according to claim 104, wherein the control unit is adapted to apply the signal in bursts of pulses, and increase the strength of the signal by decreasing a spacing between successive bursts.

107. The apparatus according to any one of claims 94-101, wherein the control unit is adapted to apply the signal in bursts of pulses.

108. The apparatus according to claim 107, wherein the control unit is adapted to configure a spacing between successive bursts to have a duration of between about 1 and about 10 seconds.

109. The apparatus according to claim 107, wherein the control unit is adapted to configure a frequency of the pulses within each of the bursts to be between about 1 and about 200 Hz.

110. The apparatus according to claim 109, wherein the control unit is adapted to configure the frequency of the pulses within each of the bursts to be between about 5 and about 50 Hz.

111. The apparatus according to any one of claims 94-101, wherein the control unit is adapted to detect eating by the subject, and to apply the electrical signal responsive to detecting the eating.

112. The apparatus according to claim 111, wherein to apply the signal responsive to detecting the eating, the control unit is adapted to commence applying the signal at a time selected from the list consisting of: substantially simultaneously with a commencement of the eating, between about one and about 5 minutes after the commencement of the eating, and between about one and about 5 minutes prior to the commencement of the eating.

113. The apparatus according to claim 111, wherein to detect the eating, the control unit is adapted to:

measure an electrical impedance between two or more sites on a stomach of the subject, and generate an impedance signal responsive thereto,

detect a change in posture of the subject by performing a posture analysis of the impedance signal,

detect an indication of potential eating by the subject by performing an eating analysis of the impedance signal, and

responsive to the posture analysis, interpreting the impedance signal as indicative of the eating.

114. The apparatus according to claim 111, wherein to detect the eating, the control unit is adapted to:

measure an electrical impedance between two or more sites on a stomach of the subject, and generate an impedance signal responsive thereto,

compare a measure of a sudden, sustained change in the impedance signal to a threshold, and

detect the eating by analyzing the impedance signal, and responsive to the comparing.

115. The apparatus according to claim 111, wherein to detect the eating, the control unit is adapted to analyze an electrical measurement of the stomach, and, responsive to the analysis, determine whether an electrical event indicative of a slow wave has occurred.

116. Apparatus for treating a subject, comprising:

at least one electrode, adapted to be coupled to a site of the subject selected from the list consisting of: a colon of the subject, and a distal small intestine of the subject; and

a control unit, adapted to drive the at least one electrode to apply an electrical signal to the site, and to configure the signal to perform an action selected from the list consisting of: stimulate cells of the subject to increase secretion of peptide YY (PYY), and inhibit secretion of ghrelin by cells of the subject, in order to treat the subject.

117. The apparatus according to claim 116, wherein the cells include L-cells, and wherein the control unit is adapted to apply the signal to modulate the L-cells.

118. The apparatus according to claim 116, wherein the site includes the colon, and wherein the control unit is adapted to apply the signal to the colon.

119. The apparatus according to claim 116, wherein the site includes the distal small intestine, and wherein the control unit is adapted to apply the signal to the distal small intestine.

120. The apparatus according to claim 116, wherein the control unit is adapted to configure the signal to be suitable for treating a condition selected from the list consisting of: obesity, NIDDM, heart disease, and hypertension.

121. The apparatus according to claim 116, wherein the control unit is adapted to apply the signal in the absence of detecting eating by the subject.

122. The apparatus according to claim 116, wherein the control unit is adapted to apply the signal periodically.

123. The apparatus according to claim 116, wherein the control unit is adapted to vary at least one parameter of the signal in real time.

124. The apparatus according to any one of claims 116-123, wherein to apply the signal, the control unit is adapted to apply an excitable tissue control (ETC) signal to the site.

125. The apparatus according to claim 124, wherein the control unit is adapted to sense natural electrical activity of the site, and to apply the ETC signal responsive to the sensed natural electrical activity.

126. The apparatus according to any one of claims 116-123, wherein the control unit is adapted to:

detect an occurrence selected from the list consisting of: an occurrence of eating, an occurrence of excessive eating, and an occurrence of an elevated blood glucose level; and

responsive to detecting the occurrence, increase a strength of the signal.

127. The apparatus according to claim 126, wherein the control unit is adapted to apply the signal in bursts of pulses, and to increase the strength of the signal by increasing a frequency of the pulses in each of the bursts.

128. The apparatus according to claim 126, wherein the control unit is adapted to apply the signal in bursts of pulses, and increase the strength of the signal by decreasing a spacing between successive bursts.

129. The apparatus according to any one of claims 116-123, wherein the control unit is adapted to apply the signal in bursts of pulses.

130. The apparatus according to claim 129, wherein the control unit is adapted to configure a spacing between successive bursts to have a duration of between about 1 and about 10 seconds.

131. The apparatus according to claim 129, wherein the control unit is adapted to configure a frequency of the pulses within each of the bursts to be between about 1 and about 200 Hz.

132. The apparatus according to claim 131, wherein the control unit is adapted to configure the frequency of the pulses within each of the bursts to be between about 5 and about 50 Hz.

133. The apparatus according to any one of claims 116-123, wherein the control unit is adapted to detect eating by the subject, and to apply the electrical signal responsive to detecting the eating.

134. The apparatus according to claim 133, wherein to apply the signal responsive to detecting the eating, the control unit is adapted to commence applying the signal at a time selected from the list consisting of: substantially simultaneously with a commencement of the eating, between about one and about 5 minutes after the commencement of the eating, and between about one and about 5 minutes prior to the commencement of the eating.

135. Apparatus for detecting a change in posture of a subject, comprising:

two electrodes, adapted for coupling to respective sites on tissue of the subject; and

a control unit, adapted to:

drive a current between the electrodes,

measure, responsive to the current, an electrical impedance between the sites,

generate an impedance signal responsive to the measured electrical impedance, and

detect the change in posture by performing a posture analysis of the impedance signal.

136. The apparatus according to claim 135, wherein the control unit is adapted to:

detect an indication of potential eating by the subject by performing an eating analysis of the impedance signal; and

responsive to the posture analysis, interpret the impedance signal as indicative of eating.

137. Apparatus for detecting eating by a subject, comprising:

two electrodes, adapted for coupling to respective sites on a stomach of the subject; and

a control unit, adapted to:

drive a current between the electrodes,

measure, responsive to the current, an electrical impedance between the sites,

generate an impedance signal responsive to the measured electrical impedance,

compare a measure of a sudden, sustained change in the impedance signal to a threshold; and

detect the eating by analyzing the impedance signal, and responsive to the comparing.

138. The apparatus according to claim 137, wherein to analyze the impedance signal, the control unit is adapted to apply a high-pass filter to the impedance signal.

139. The apparatus according to claim 137, wherein to analyze the impedance signal, the control unit is adapted to compare a measure of the impedance signal with a threshold.

140. The apparatus according to claim 137, wherein to analyze the impedance signal, the control unit is adapted to apply a low-pass filter to the impedance signal.

141. The apparatus according to any one of claims 137-140, wherein to compare the measure of the change, the control unit is adapted to: (a) calculate a difference between a

current measure of the change and a previous measure of the change, and (b) compare an absolute value of the difference to the threshold.

142. The apparatus according to any one of claims 137-140, wherein to analyze the impedance signal, the control unit is adapted to calculate a baseline value of the impedance signal.

143. The apparatus according to claim 142, wherein the control unit is adapted to use a slow-reacting formula to calculate the baseline value.

144. The apparatus according to claim 142, wherein the control unit is adapted to reset the baseline value when the measure is greater than the threshold.

145. The apparatus according to claim 144, wherein to reset the baseline value, the control unit is adapted to add a current value of the impedance signal to the baseline value.

146. The method according to claim 44, wherein configuring the signal comprises configuring the signal to stimulate the cells to increase the secretion of the PYY.

147. The method according to claim 44, wherein configuring the signal comprises configuring the signal to inhibit the secretion of the ghrelin by the cells.

148. The apparatus according to claim 116, wherein the control unit is adapted to configure the signal to stimulate the cells to increase the secretion of the PYY.

149. The apparatus according to claim 116, wherein the control unit is adapted to configure the signal to inhibit the secretion of the ghrelin by the cells.